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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/543,096	07/22/2005	Gary M Ducatel	36-1914	5702
23117 7590 02/07/2007 NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			EXAMINER CHAU, DUNG K	
			ART UNIT	PAPER NUMBER
			2109	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/07/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/543,096

Applicant(s)

DUCATEL ET AL.

Examiner

Dung K. Chau

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 7/22/2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

1. Claims 1-37 are presented for examination.

Specification

2. Applicant is requested to use the following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a)

and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 12 recites the limitation "said groups of keywords" in line 7. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

or

(e) the invention was described in (1) an application for patent, published under section

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122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

or

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 1-4, 6, 9-13, 15, 18-24, 26, 28-31, 33, and 35-37 are rejected

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under 35 U.S.C. § 102(a) and 102(e) as being anticipated by Fables et al. (Fables) patent no. US 6895406 B2.

7. As to claim 12, Fables teaches the invention as claimed, including a method for creating and maintaining a user profile for a user for improving database searching by the user, said method comprising a learning phase and an updating phase, wherein said learning phase comprises the steps of:

accessing a predetermined set of documents containing a plurality of keywords (page 1, paragraph [0005]);

analysing said documents and identifying, according to predetermined rules, groups of related keywords therein (page 1, paragraph [0005]; p 2, paragraphs [0023, 0025]);

assigning attributes indicative of relatedness to said groups of keywords (page 1, paragraph [0011]; page 3, paragraph [0029]); and

storing said relatedness attributes as a user profile (page 1, paragraph [0010]; page 3, paragraph [0030]; page 4, paragraph [0040]);

and wherein said updating phase comprises the steps of:

updating the set of documents by adding documents to or subtracting documents from the set (page 3, paragraph [0029-0030]);

analysing the updated set of documents and identifying existing and additional groups of related keywords therein, according to predetermined rules (page 3, paragraph [0030]);

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assigning attributes indicative of relatedness to said additional groups of keywords (page 3, paragraph [0030]);

updating the relatedness attributes of said existing groups of keywords (page 4, paragraph [0045-0046]); and

updating the user profile in accordance with the relatedness attributes of said existing and additional groups of keywords (page 4, paragraph [0045-0046]).

8. As to claim 13, Fables teaches groups containing pairs of related keywords are identified (page 3, paragraph [0028]; page 4, paragraph [0054]).

9. As to claim 15, Fables teaches the step of assigning attributes comprises assigning importance values indicating the statistical significance of related keywords in the set of documents (page 4, paragraph [0044-0047]).

10. As to claim 18, Fables teaches the step of updating the set of documents comprises updating the set of documents in response to user input (page 1, paragraphs [0008-0010]; page 3, paragraph [0030]).

11. As to claim 19, Fables teaches the step of updating the set of documents comprises adding new documents to the set of documents in the event of user input confirming that said new documents are of interest to the user (page 1, paragraphs [0008-0010]; page 3, paragraph [0030]).

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12. As to Claim 20, Fables teaches a step of updating the set of documents on the basis of documents viewed by the user following receipt of a response from a search engine to a search query (page 1, paragraphs [0008-0010]; page 3, paragraph [0030]).

13. As to claim 21, Fables teaches said relatedness attributes are stored in the form of fuzzy sets (page 2, paragraph [0019]).

14. As to claim 31, Fables teaches A method for improving database searching, comprising the steps of :

receiving a search query comprising one or more search keywords from a user (page 3, paragraph [0027]);

accessing a user profile means arranged to provide data indicative of relatedness criteria between keywords from a set of documents, and identifying from said user profile means, for the or each search keyword, potentially-related keywords according to predetermined criteria (page 4, paragraphs [0043-0044]);

providing said potentially-related keywords to the user (page 4, paragraph [0043]);

receiving information from the user confirming that any potentially-related keywords are considered to be related keywords (page 4, paragraph [0045]);

in the event that any potentially-related keywords are confirmed by the user to be related keywords, incorporating such potentially-related keywords as keywords in an improved search query (page 4, paragraph [0046]); and

submitting the improved search query to a search engine (page 3, paragraph [0030]; page 4, paragraphs [0046-0047]).

15. As to claim 33, Fables teaches the user profile means is arranged to provide importance values indicating the statistical significance of related keywords in the set of documents (page 3, paragraph [0030]; page 4, paragraphs [0043-0048]).

16. As to claim 35, Fables teaches the user profile means is arranged to provide said data indicative of relatedness criteria in the form of fuzzy sets (page 2, paragraph [0019]).

17. As to claim 36, Fables teaches the step of updating the set of documents on the basis of documents viewed by the user following receipt of a response from a search engine to a search to a search query (page 3, paragraph [0029]).

18. As to claim 37, Fables teaches step of updating the data indicative of relatedness criteria on the basis of information received from the user (page 3, paragraph [0030]).

19. As to claim 2, Fables teaches the predetermined set of documents is a set of documents expected to reflect the interests of a specific user (page 1, [0015]).

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20. Claims 1, 4, 6, and 9-11 have similar limitations as claims 12-13, 15, and 18-21; therefore, they are rejected under the same rationale.

21. Claims 3, 23-24 have similar limitations as claim 2; therefore, they are rejected under the same rationale.

22. Claims 22, 26, and 28-30 have similar limitations as claims 31, 33, and 35-37; therefore, they are rejected under the same rationale.

Claim Rejections - 35 USC § 103

23. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

24. Claims 5, 14, 25, and 32 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over Fables et al. (Fables), patent no. US 6895406 B2, in view of

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Choi, Pub. No. US 2002/0042793.

25. As to claim 14, Fables teaches the invention substantially as claimed as discussed above; however, Fables does not explicitly teach a method of identifying related keywords from the set of documents by means of a self-organizing map algorithm.

Choi teaches a method of using Bayesian self-organizing feature maps (SOM) to identifying related keywords from the set of documents (abstract; page 3, paragraphs [0051-0052]).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have modified the method for creating and maintaining a user profile for a user for improving database searching of Fables by using SOM algorithm, as taught by Choi, as this modification would allow the related keywords are identified from the set of documents by means of a Self-organizing map algorithm.

26. Claims 5, 25, and 32 have similar limitations as claim 14; therefore, they are rejected under the same rationale.

27. Claims 7-8, 16-17, 27, and 34 rejected under 35 U.S.C. § 103 (a) as being unpatentable over Fables et al. (Fables), patent no. US 6895406, in view of Kawasaki, Patent No. US 6539375.

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28. As to claim 16, Fables teaches the invention substantially as claimed as discussed above; however, Fables does not explicitly teach the step of assigning attributes life-span values indicating the expected remaining period of time of relatedness between keywords in the set of documents.

Kawasaki teaches the use of an aging algorithm to generate a level of recent interest (Fig 3; column 4, lines 42-48; column 5, lines 9-15).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have modified the method for creating and maintaining a user profile for a user for improving database searching of Fables by using aging algorithm, as taught by Kawasaki, as this modification would allow to obtain the life-span values indicating the expected remaining period of time of relatedness between keywords in the set of documents.

29. Claims 7-8, 17, 27, and 34 have similar limitations as claim 16; therefore, they are rejected under the same rationale.

30. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent Documents:

US-2005/0229107, US-6327590, US-6363377, US-2006/0271535, US-6088692, US-2002/0051576.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung K. Chau whose telephone number is 571-270-1754. The examiner can normally be reached on Mon - Friday 7:30am - 5:00pm Est, Alt Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah J. Reynolds can be reached on 571-272-4919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


DKC


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SUPERVISORY PATENT EXAMINER